

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No. 09/729,195

**REMARKS**

Claims 3, 10-13, 23-25 and 30 are all the claims pending in the application.

**I. The Rejections Based on JP '079, JP '961 or JP '473**

Claim 1 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by any one of JP 11-740079 (JP '079), JP-11-185961 (JP '961) or JP -11-2974473 (JP '473).

Claim 1 has been canceled. Therefore, the rejections of claim 1 are moot and it is requested that the rejections under 35 U.S.C. §102 be reconsidered and withdrawn.

**II. The Rejections Based on JP '284**

Claims 1-4, 6, 10-16 and 18-22 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 9-268284 (JP '284).

Claims 5, 7-11, 17-19 and 23-25 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '284.

Claims 26-29 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '284.

First of all, the Examiner states that Applicants discuss two distinct features in the compound of the present invention. One feature, the substituent at the R<sub>6</sub> position, said to result in higher stabilization of the compound, particularly against

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UV light, and the other feature, the substituent at the ortho position, said to reduce intermolecular interaction.

The Examiner states that neither of the two features argued by applicants are recited by claims 1, 3, 4, 6, 7, 9-13 and 22-25. The Examiner further states that none of the other claims recites both of the features argued by Applicants. (The Examiner notes that claims 2, 14, 18, 19 and 21, and the claims dependent from 14, 18, 19 and 21, require a substituent at the  $R_6$  position but do not require an additional substituent at an ortho position and that claim 5 requires a substituent at an ortho position, but does not require an additional substituent at the  $R_6$  position).

With respect to the "obviousness" rejections under 35 U.S.C. 103(a), the Examiner states that the evidence of the Declaration is not commensurate in scope with the claims. That is, it is the Examiner's position that inventive Compound 2 of the Declaration is more "restrictive" than the compound required by any of the rejected claims in that none of the present claims require three butoxy groups at ortho-and para- positions. More broadly, the Examiner states that none of the present claims require substituents at each of the ortho-positions and the para-position of a phenyl ring attached to a nitrogen as in Compound 2 of the declaration.

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Applicants respectfully submit that the present invention is not anticipated by or obvious over the disclosures of JP '284 and request that the Examiner reconsider and withdraw these rejections in view of the following remarks.

Applicants submit that claim 3 is amended to include the concept of long alkyl chains and  $\beta$ -substitution. Further, claim 3 is amended to incorporate the subject matter of claims 4-6. In view thereof, Applicants submit that the pending claims, as amended, are not "anticipated" by the teachings of JP '284. Applicants' also respectfully submit that claim 3 is commensurate in scope with the data of the §132 Declaration and with the arguments set forth in the Amendment filed December 23, 2002.

The interaction between molecules increases greatly, so that the stacking between the molecules of a central skeleton portion also increases. If the interaction becomes great, the deterioration of the luminescence efficiency by concentration quenching will become remarkable. Therefore, a device to which a stacking of a central skeleton portion occurs less frequently is needed.

By introducing an alkyl substituent into the phenyl group of diphenyl amino group, the stacking of the central skeleton is inhibited by steric hindrance effect, and luminescence efficiency improved. In the example shown by the §132 Declaration, since compound 2 has phenyl groups bearing substituents not only at one ortho-position but at second ortho- and para-positions, the Examiner has

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indicated that it cannot be determined from the data set forth in the §132 Declaration that the presence of one substituent at an ortho-position is solely responsible for the improvements resulting from the use of compound 2 versus compound 1. Applicants submit that it is well-known that the steric hindrance effect by the substituent of the ortho position nearest to a central skeleton is very large compared with the effect produced by the substituent of other positions. In this regard the present specification clearly discloses "[f]or example, ... 2-butylphenyl group, 2,6-dibutylphenyl group, 2,4,6-tributylphenyl group and the like may sometimes be used as Ar" (page 11, lines 17-21). Thus, Applicants respectfully submit that one of ordinary skill in the art would consider the comparative data to be representative of unexpected superiority.

Further, the technical idea of which the stacking of molecules is prevented by introducing a steric hindrance to improve the luminescence efficiency is not taught or disclosed by JP '284.

For the above reasons, it is respectfully submitted that the subject matter of claims 3, 10-13, 23-25 and 30 is neither taught by nor made obvious from the disclosures of JP '284 et al and it is requested that the rejections under 35 U.S.C. §§102 and 103(a) be reconsidered and withdrawn.

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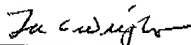
**III. Conclusion**

In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejections under 35 U.S.C. §102 and the rejections under 35 U.S.C. §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Lee C. Wright  
Registration No. 41,441

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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